FIRE DEPARTMENT

AND WIRE DIVISION

CITY OF BOSTON

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ANNUAL REPORT 1938

FIREMAN MAKES INSPECTION OF DWELLING

EVERY HOME VISITED DURING 1938—FIRST TIME IN HISTORY OF CITY

ANNUAL REPORT

OF THE

FIRE DEPARTMENT
AND WIRE DIVISION

OF THE

CITY OF BOSTON

FOR THE

YEAR ENDING DECEMBER 31, 1938

CITY OF BOSTON
PRINTING DEPARTMENT
1939

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ANNUAL REPORT

OF THE

FIRE DEPARTMENT

FOR THE YEAR 1938.

Boston, January 5, 1939.

Hon. Maurice J. Tobin,
Mayor of the City of Boston.

Dear Sir,— I have the honor to submit herewith a concise report of the activities of the Boston Fire Department and the Wire Division for the year ending December 31, 1938.

Respectfully submitted,

William Arthur Reilly,
Fire Commissioner.

HISTORY.

FIRE COMMISSIONERS.

*1874–1876.	Alfred P. Rockwell.
1877–1879.	David Chamberlain.
1879–1883.	John E. Fitzgerald.
1883–1885.	Henry W. Longley.
1885–1886.	John E. Fitzgerald.
1886–1895.	Robert G. Fitch.
1895–1905.	Henry S. Russell.
1905.	Patrick J. Kennedy. (Acting February 17—March 20.)
1905–1908.	Benjamin W. Wells.
1908–1910.	Samuel D. Parker.
1910.	Francis M. Carroll. (Acting May 27—September 16.)
1910–1912.	Charles C. Daly.
1912–1914.	Charles H. Cole.
1914–1919.	John Grady.
1919–1921.	John R. Murphy.
1921–1922.	Joseph P. Manning. (Acting Nov. 8, 1921—April 1, 1922.)
1922.	William J. Casey. (Acting April 1—August 24.)
1922–1925.	Theodore A. Glynn.
1926.	Thomas A. Sullivan. (Acting January 26—July 6.)
1926–1930.	Eugene C. Hultman.
1930–1933.	Edward F. McLaughlin.
1933.	Eugene M. McSweeney. (October 16, 1933—January 5, 1934.)
1934–1938.	Edward F. McLaughlin.
1938.	William Arthur Reilly.

CHIEFS OF DEPARTMENT.

1826–1828.	Samuel D. Harris.
1829–1835.	Thomas C. Amory.
1836–1853.	William Barnicoat.
1854–1855.	Elisha Smith, Jr.
1856–1865.	George W. Bird.
1866–1874.	John S. Damrell.
1874–1884.	William A. Green.
1884–1901.	Louis P. Webber.
1901–1906.	William T. Cheswell.
1906–1914.	John A. Mullen.
1914.	John Grady. (1 day.)
1914–1919.	Peter F. McDonough.
1919–1922.	Peter E. Walsh.
1922–1924.	John O. Taber.
1925–1930.	Daniel F. Sennott.
1930–1936.	Henry A. Fox.
1936–	Samuel J. Pope.

* Previous to 1874, the Boston Fire Department was in charge of the Chief Engineer.

PRESENT DEPARTMENT OFFICIALS.

William Arthur Reilly, *Fire Commissioner.*
William D. Slattery, *Executive Secretary.*

Samuel J. Pope, *Chief of Department.*

DEPUTY CHIEFS:

Fire Prevention. Thomas H. Downey.
* Division I. Louis C. Stickel, John J. Kenney.
† Division II. William F. Quigley, John F. McDonough.
‡ Division III. Frank A. Sweeney, Dennis J. Coughlin.

DISTRICT CHIEFS:

District 1 (East Boston). Napeen Boutilier, William F. Donovan.
" 2 (Charlestown). Philip A. Tague, John P. Walsh.
" 3 (Waterfront). William A. Donovan, Charles D. Robertson.
" 4 (North and West Ends). Michael J. Aylward, Franklin B. Sanborn.
" 5 (City Proper). John F. Watson, Daniel Crowley.
" 6 (South Boston). Edward G. Chamberlain, James J. Kane.
" 7 (South End and Back Bay). Michael F. Minehan, William J. Mahoney.
" 8 (Back Bay and Roxbury). Daniel Martell, Charles H. McDonnell.
" 9 (Roxbury). William H. McCorkle, John J. O'Brien.
" 10 (Dorchester). Daniel J. Hurley, Edward N. Montgomery.
" 11 (Brighton-Allston). Thomas H. Andreoli, Joseph W. Shea.
" 12 (Roxbury-Jamaica Plain). Timothy F. Donovan, Thomas F. Ward.
" 13 (Roslindale-West Roxbury). Charles A. Donohoe, Edward F. McCarthy.
" 14 (Dorchester). Walter C. Glynn, James A. Gagan.
" 15 (Hyde Park). William Hart, Allen J. Jarvis.

FIRE ALARM DIVISION:

George L. Fickett, *Superintendent.*
William N. Bonner, *Assistant Superintendent.*
John Galway, *Chief Operator.*

MAINTENANCE DIVISION:

Edward E. Williamson, *Superintendent.*
John D. Buckley, *General Foreman.*
James W. Ryan, *Engineer of Motor Apparatus.*

WIRE DIVISION:

Bernard B. Whelan, *Superintendent.*

MEDICAL EXAMINER:

Martin H. Spellman, M. D.

* Districts 1-2-3-4-5. † Districts 6-7-8-11. ‡ District 9-10-12-13-14-15.

RECIPIENTS OF HONOR MEDALS.

Year.	Roll of Merit.‡	Walter Scott Medal.†	John E. Fitzgerald Medal.*
1880.	E. B. Smith. George F. Griffin. T. E. Simonds.	—	—
1882.	Nathan L. Hussey. Edwin H. Sawyer.	—	—
1883.	Edwin H. Sawyer.	—	—
1897.	James F. Bailey.	—	—
1898.	Eugene Rogers.	—	—
1900.	Peter Callahan. Joseph A. Kelley. Timothy J. Heffron. James E. Downey.	—	—
1901.	Frederick F. Leary. Florence Donoghue. James J. O'Connor. James F. McMahon. Martin A. Kenealy. Dennis Driscoll. William H. Magner. Thomas J. Muldoon. Dennis McGee.	—	—
1902.	Joseph P. Hanton. Michael J. Teehan.	—	—
1903.	Charles W. Conway. Michael J. Dacey. Patrick E. Keyes.	—	—
1909.	Thomas H. Downey.	—	—
1917.	Edward McDonough. John J. Kennedy.	—	—
1918.	Henry J. Kelley.	—	—
1922.	Carl S. Bowers.	Dennis M. Condon.	John J. Leary.
1923.	—	James H. Curran.	Daniel J. O'Brien.
1924.	Carl V. Anderson. James G. Buchanan. Arthur A. Ryan.	Edward J. Crowley.	Thomas F. Kilduff.
1927.	Dennis M. Condon. Gilbert W. Jones. Walter P. Corbett. Edward J. Murphy.	Gilbert W. Jones.	Dennis M. Condon.
1929.	William O. Cheswell. John J. Martin.	John J. Boyle.	Joseph P. Hanton.
1932.	John A. O'Connor.	—	—
1933.	William C. Jeffers.	—	—
1934.	—	—	Patrick J. Flaherty.
1935.	James F. Sheehan.	—	—
1936.	—	—	John J. Crehan.
1938.	Dennis J. McLaughlin.	—	—

* Highest award for the most meritorious act performed during year.
† Award for special valor in performance of duty as a fireman.
‡ Distinguished service in the saving of life. Prior to 1922 the "Roll of Merit" was the highest award given.

IN MEMORIAM.

"All honor unto gallantry
In reverence we pay —
That others might have days to be
These gave their lives away.
Now glory shall enshrine each name
And time their deeds defy —
Since humble men who sought no fame
Have taught us how to die."

HENRY GILLEN.

BOSTON FIRE DEPARTMENT HEROES WHO SACRIFICED THEIR LIVES FIGHTING FIRES.

1872.	Thomas Young.
	William Farry.
	Daniel Cochrane.
1873.	Brown P. Stowell.
	James Sturks.
	John Prince, Jr.
1874.	William S. Hill.
1875.	John H. Kelley.
1878.	Fred A. W. Gay.
1881.	Thomas J. Tobey.
1884.	Joseph Pierce.
	James Quigley.
1886.	William H. Flavell.
1889.	Michael Murnan.
	J. J. Brooks.
	F. P. Loker.
	D. J. Buckley.
1890.	Patrick M. Crotty.
1893.	John M. Powers.
1896.	William H. Chapman.
1897.	Joseph F. Collins.
1898.	John F. Egan.
	James H. Victory.
	George J. Gottwald.
	Patrick H. Diskin.
	John J. Mulhern.
	William J. Welch.
1899.	Martin F. McDonald.
1900.	Patrick J. McCarthy.
	Herbert Pierce.
1902.	Solomon P. Russell.
1902.	Daniel L. Shea.
1906.	William T. Cheswell.
1907.	Cornelius H. Tagen.
1909.	James B. Akerly.
1910.	Patrick W. Lanegan.
1912.	Phillip T. Smith.
1914.	Joseph A. Hackett.
	William H. Hughes.
1915.	Charles Willett.
	Dennis A. Walsh.
1917.	Alexander F. Mitchell.
	Frank A. Lailer.
1919.	Thomas J. Stevens.
	George Layhe.
1922.	William J. Swan.
1925.	Owen T. Norton.
1926.	Michael J. Travers.
1927.	Joseph M. Donovan.
	James Gavagan.
1928.	Martin J. Callahan.
1929.	Florence J. Sullivan.
	William E. Emmel.
1930.	George J. Corcoran.
1931.	Michael A. Riley.
1932.	Henry J. Power.
1935.	Albert F. Mitchell.
	Michael J. Gilligan.
	Frank J. Parkes.
1937.	John T. Murphy.
	Edward R. Lynn.
1938.	Cornelius Noonan.

SECTION I — THE FIRE DEPARTMENT.

GENERAL STATEMENT.

Because of the character of the City of Boston with its narrow crooked streets, large areas of old wooden buildings (93,966 in which 1,822 fires occurred in 1938), authorities agree that this city is faced with problems not experienced by any other fire department in the country. That fires in Boston have been confined to their point of origin during the past few years reflects great credit on the fire-fighting force.

The possibility of an emergency arising from simultaneous alarms is ever present as it can be readily visualized that the dilapidated condition of the water front might engage the entire resources of the department under certain conditions.

The mutual aid system* would offer some security if, for example, a serious fire broke out in an outlying district during operations at a conflagration on the water front. This was brought home when, on June 16, 1938, two three-alarm fires took place simultaneously. At that time it was necessary for the department to rely upon outside help to protect certain suburbs.

The necessity for reduced expenses in city government is obvious and the Fire Department has cooperated to the fullest extent in the laudable program of the Mayor to relieve the taxpayers' burden. No new men were appointed; no new uniforms were purchased during 1938; no new apparatus was purchased; and various other economies were effected. Obviously, however, we are only postponing the day when a large amount of fire apparatus must be purchased to provide adequate protection for the city.

The high average age of members of the department at the present time is a source of concern to the Commissioner. Until the new contributory pension system offers inducement to elderly members of the department to retire, a major reduction in the expense of personnel in the fire-fighting force cannot be safely

* Mutual Aid System. Agreement between neighboring cities and towns to fill in for one another when called upon for help.

accomplished. Under the old retirement system the city is obliged to compensate retired members at one-half pay during the period of their retirement, and this amount is made available by direct appropriations.

If a continuation of the downward trend in fire losses is to be experienced, additional legislation must be secured permitting the authority of the Fire Department to be strengthened through participation in the establishment of a new building code and enforcement of penalties for certain violations as discovered by the Fire Prevention Bureau. As most fires are caused by carelessness it is not unreasonable to believe that the present fire losses can be reduced by at least 50 per cent within the next ten years, just as they have been reduced by 50 per cent during the past ten years. Authority to order the installation of sprinkler systems in certain old buildings on high valued land will do much to make this reduction possible. Prohibition of the use of fireworks except in supervised formal public displays will likewise contribute in making a reduction in fire losses possible. The demolition of ancient third-class wooden construction in the city should be accelerated as far as is possible. For some years it has been noted that the upper stories of five and six story buildings in certain sections of the city have been found unprofitable and these buildings have been razed either completely to provide parking spaces for automobiles or such buildings have been replaced by modern two-story structures. This trend will be helpful in reducing fire losses also.

New hazards are coming onto the horizon through the development of air-conditioning equipment, new electrical appliances, and the use of certain chemical properties in foodstuffs, apothecary supplies, and miscellaneous merchandise for use in the home. The Fire Department is well acquainted with these through lectures by recognized authorities in various fields at the Fire College and by attention to the findings of various research bodies. Oil-burning equipment for heating purposes offers a problem which is quite different from that offered by the old coal-burning equipment in various stores and residences. The development of all of these articles and appliances is consistent with the trend of modern living. The Fire Department, however, must be equipped to meet these conditions and given authority to regulate the conditions surrounding storage and sale of such objects.

Continued attention to fire prevention education is of the utmost necessity and as far as is possible, under the limited financial resources of the department or the legal restrictions on the operations of the department, these conditions will be met in the future.

Some significance may be placed upon the fact that during 1938 there were fewer alarms sounded than in 1937. Nevertheless, the 1938 loss was approximately the same as in 1937. A substantial increase in the number of false alarms was noted,* but a solution to this problem seems to have been found in the installation of sirens on certain boxes of the city. The investment of the taxpayers in the past for Fire Department equipment may be appreciated from the following facts: Motorized fire fighting apparatus cost over $2,000,000; hose, extinguishers, and equipment is valued at over $144,000; uniform service to firemen cost over $76,000 (this figure applies only to uniforms now in use); an inventory of the stock in the Maintenance Division shows material on hand valued at over $78,000 based on cost prices; the value of trucks and machinery in the Maintenance Division is over $46,000.

We have 52 fire engines in service and 9 in reserve; 48 hose wagons in service and 10 in reserve; 31 ladder trucks in service with 13 in reserve. In addition, we have three fireboats, 3 rescue wagons, 3 water towers, 35 chiefs' automobiles, 1 fuel wagon, 14 supply automobiles, 2 smoke ejectors, 2 portable light plants, and 1 foam wagon. We have 502 short ladders in service and 303 portable fire extinguishers with approximately 200,000 feet of hose of various sizes, with 20,000 feet in reserve. There are 49 fire stations in the city exclusive of the fireboats, high pressure stations and other buildings.

There were 1,012 privates in the department as of December 31, 1938, distributed among the 31 ladder companies, 53 engine companies, high pressure stations, fire alarm station, Maintenance Division and Headquarters.

1938 ACCOMPLISHMENTS.

Fire Loss.

The total fire loss for the City of Boston estimated by the insurance companies amounted to $2,360,552.83. This total includes marine losses of $132,675. This

* Yet Boston's false alarm record was the best of the large cities in the United States for 1938.

loss is approximately 6 per cent below the total losses for 1937. The total loss for all land fires is $2,227,887.83. This amount is $23,521 higher than for the previous year.

Expenses.

Expenses of the department decreased from the year 1937 by $65,346.92. The total amount expended during the year 1938 was $4,018,980.62. On page No. 22, a graph shows the trend of expenses during the past few years.

Income.

The income for the year showed an increase over the previous year. Total income from all sources was $37,252.57 as against $32,219.87 for 1937. The table on page No. 38 shows the trend of revenue for the past ten years.

Personnel.

The following changes in personnel of the fire fighting force occurred during 1938: thirty (30) retirements and ten (10) deaths. The promotions were: one (1) district chief, four (4) captains, one (1) first engineer, three (3) second engineers, one (1) third engineer, one (1) master and two (2) aides to commissioner. These promotions were necessary to increase the operating efficiency of the fire fighting force. There were no new appointments to the rank of private.

Promotions from the Civil Service list were made strictly in accordance with the standing of the various candidates on the lists, as certified by the Civil Service Commissioner.

A recreational program was commenced in which approximately one third of the department now participates.

A physical examination of all men engaged in special details was held and a special survey was held to determine latent talent among the various employees of the department.

Housing.

Four fire houses were abandoned and the Fire Department garage was razed during the year 1938. In addition, two stations formerly occupied by double companies were reduced to single companies, thus eliminating the need for upkeep on one half of each double house.

Apparatus.

Apparatus of the department is undergoing a general rehabilitation by means of a repainting program and a schedule in operation calling for the installation of booster brakes on ladder trucks, windshields on all old apparatus, and the installation of portable lighting equipment on at least one ladder truck in each district for aiding in fighting night fires. Additional gas masks have been purchased for use by members of the department. The latest type spray nozzles have been likewise adopted for use at fires and several of the latest type life nets have been purchased for greater safety in rescue work.

Fire Prevention.

Highly commended and publicized were the public exhibitions of ladder, drill and rescue work, which were held at various sections of the city during the month of October. Boston was awarded first prize among the cities of the United States and Canada as the city showing the greatest improvement in fire prevention work during the year 1938. This prize is awarded annually by the National Board of Fire Underwriters.

In addition to this award, the United States Chamber of Commerce placed Boston among the honor cities of the country for its fire department record during the year 1938. This is the first time in the history of the city that either of these organizations have so honored the department.

To make possible these public exhibitions the Maintenance Division constructed a forty-six foot portable drill tower; dismantling, moving and erecting this tower for each exhibition.

Seasonal fire prevention signs were displayed on fire houses throughout the year. Thirty-four of the most prominently located fire stations were designated for display of these signs. Twenty thousand especially prepared flyers and folders were distributed in all the mail of the various departments in the City of Boston during Fire Prevention Week. Fire prevention messages were distributed to suburban papers and to various trade papers throughout the year. Fire prevention broadcasts were given regularly from the major radio

stations of the city. District chiefs visited all the schools of the city addressing the pupils and conducting fire drills and home inspection blanks were distributed to twenty thousand children.

Two twenty-minute fire prevention motion picture films were furnished to the public schools for showing in every public school building. Over one hundred lectures were given to organizations of the city on fire prevention matters and our regular department 35 m.m. film was shown at each of these lectures.

Church announcements were secured, fireboat displays, parades, Boy Scout demonstrations, meetings of watchmen, and various trade associations were conducted this year to a greater extent than ever before in the history of the city.

During the year 1938, 194,000 inspections were made by Fire Prevention inspectors, and 36,000 conditions were corrected. These conditions consisted of minor hazards, such as accumulated rubbish, obstructed stairways, fire escapes, unlicensed fires in the open, dangerous storage of materials, etc.

Lectures were given in all the public schools of the city and home inspection blanks were distributed to the children. Many radio addresses were made and various articles written for trade papers dealing with specific problems in various industries.

Arson Squad.

272 fires were investigated by the Arson Squad during the year. 4 cases were presented to the District Attorney and later presented by him to the Grand Jury with 3 indictments returned. 12 persons were arrested, suspected of setting fires.

Maintenance Division.

During 1938, 1,233 various jobs were performed at department buildings by department mechanics at a cost for material of $992.12. 102 jobs were performed by outside concerns at a total cost of $1,702.54. Oil burners in all Fire Department stations were inspected and repaired as needed during the year and three new oil burners were installed. Three heaters were salvaged from abandoned fire houses and placed in other locations.

1,940 repair jobs were performed on various pieces of furniture throughout the year.

49 pieces of apparatus were completely painted and lettered at a cost for material of $1,322.89. 200 partial paint jobs were performed at a cost for material of $1,685, while 366 miscellaneous small painting jobs were performed at a cost for material of $1,275. 1,035 fire alarm boxes were painted by Maintenance Division painters at a cost for material of $121.35.

Motor mechanics gave a general overhaul to 18 pumpers, 13 hose cars, 16 ladder trucks, 1 rescue wagon, and 1 lighting plant. Repairs on passenger cars and department trucks were in addition to the above work. Due to the extreme age of the Fire Department apparatus a considerable amount of repair work is necessary and this amount of work will naturally be increased as years go on. The total number of repair jobs performed on apparatus by department mechanics was 4,753, at a cost for materials of $4,989.32. The amount of repair work performed by outside concerns totalled 388 jobs at a cost of $3,233.57. Outside work is done where proper facilities are not existing at the Maintenance Division Repair Shop; for example, repair of springs, fenders, carburetors, certain radiator repairs and replacement of solid tires.

4 passenger cars and 2 small trucks were turned over to the Co-ordinator of Motor Vehicles for use in other departments. Engine 41 pump was dismantled as the result of an accident after usable parts had been salvaged.

11,849 feet of hose were condemned during the year, and at the present time we have 189,744 feet of hose in service with 8,356 feet in reserve.

High Pressure Service.

High Pressure Station 1 responded to 250 alarms of fire during the year, being in operation approximately 78 hours and 38 minutes. The Venturi meters record the pumping of 176,000 gallons of water for this period.

High Pressure Station No. 2 responded to 254 alarms of fire during the year, being in operation approximately 52 hours and 15 minutes. The Venturi meters recorded the pumping of 151,500 gallons of water for this period.

Fireboats.

Each one of the three fireboats in operation in the Fire Department was repaired in conformity with the

requirements after the annual United States inspection, and practically all of the repair work was done by the Maintenance Division. The cost of outside repairs on these boats would have been approximately ten times the cost to the department were not the facilities of the Maintenance Division available for this work. The probable cost of the work done in a commercial shipyard on one boat alone would have been $8,129, according to current prices. Our department performed the work for approximately $872.51, including labor and material.

In the National Board of Fire Underwriters' report No. 158 of December, 1936, there was a recommendation that early consideration should be given to the replacement of one of our fireboats which is "old, in poor condition, and unable to deliver one half of its capacity." Recommendations concerning this are contained in another part of this report. The fireboat "Angus J. McDonald" now in service at Engine 31 was built in East Boston in 1895 and is therefore 44 years old. This is the boat to which the National Board referred.

W. P. A.

Labor Projects.

At an expense of approximately $8,000, 12 labor projects were conducted under the W. P. A. at the following locations: Engine 47, Engine 43, Engine 42, Engine 50, Engine 44, Engine 16, Engine 7, Engine 18, Engine 34, Fire Alarm Headquarters, Engine 13, Headquarters, 60 Bristol street.

This work consisted of miscellaneous repairs to roofs, walls, shingling, skylights, flashing and ventilators.

Clerical Projects.

A law project employing 3 lawyers and 15 clerks was inaugurated for the purpose of codifying all laws, statutes and ordinances relating to the Fire Department.

Another clerical project commenced the work of cross-indexing fuel oil permits. Five typists and one supervisor are engaged in this undertaking.

A mapping project was inaugurated, employing 3 supervisors and 80 employees, at the completion of which the department will have available for each fire house a map showing the location of buildings in the region covered by the men quartered at the fire

house. In addition, the location of hydrants, sprinkler connections, stairways, windows with shutters, fire walls and other information necessary to proper fire fighting will be available for use of the Fire Department. This information will enable a new officer to become familiar with his district quickly and in the case of a large fire enable a man on the outside of the fire to "size up" the condition and to plan operations.

Followed up by personal inspections of the property these maps will provide the department with equipment superior to that of any department in the country for the intelligent fighting of fires and establishment of fire regulations.

N. Y. A. Projects.

At no expense to the city employment was given to an average of 25 young men enrolled in the N. Y. A. by means of which these men were given experience in office work, in motor vehicle repair and care, in carpentry, painting, electrical work, and the various trades connected with the department Maintenance Division. This department received the benefit of the services rendered, and the young men thus employed themselves received a training which qualified them for private employment as experienced assistants in the various trades.

1939 OBJECTIVES.

1. Coordination of all educational activities into one central administration of the Fire College.
2. Organization of the special parade team to appear with the Fire Department Band and Drill Team in public processions and exhibitions.
3. Commencement of a program of installation of two-way radio communication in all chiefs' cars.
4. Commencement of a program placing all overhead fire alarm wires underground.
5. Establishment of a card index of all addresses in the City of Boston showing an analysis of the condition of the premises and a census of the number of persons housed at each address.
6. Investigation by the Arson Squad of all fires where the loss exceeds $5,000.
7. Extension of military drill, gymnasium or athletic activities to every company of the Fire Department.

8. Sponsoring of legislation calling for reduction in the age limit of applicants for positions in the fire fighting force (based on the findings that the present average age of privates in this department is forty-seven).

9. Support of other legislation concerning the use of fireworks and installation of sprinklers.

10. Reinspection of all old electric wiring work in the City of Boston.

11. Replacement of heating equipment in ten stations.

12. Acquisition of one and one half inch hose for certain locations and uses.

13. Acquisition of new type inhalators and resuscitators for use by the Rescue Squad and various ladder companies.

14. Study of loss ratio to premiums for drive to obtain lower insurance rates in Boston.

15. Continuation of program inaugurated in 1938 for the rehabilitation of old apparatus; fire prevention activities, etc.

16. Installation of an enlarged multiple type switchboard at the Fire Alarm Office in the Fenway.

17. Establishment of an improved system for the summoning of the off-platoon in case of an emergency, disaster.

18. Installation of sirens on fire alarm boxes in the City of Boston to eliminate the increased number of false alarms.

19. Study of present district lines with possible reduction in view.

Recommendations.

Housing.

(*A.*) At the present time High Pressure Station No. 2 is on rented land, on Atlantic avenue. Engine 8 is on Salem street, in a most congested section, where the response of the apparatus is seriously impaired by traffic conditions. It is the Fire Commissioner's recommendation that on Hanover street, on city land, a new fire station be erected to house Engine 8 and Ladder 1 now located at Bowdoin square. This will give increased protection to the North End and business district of the city. At the same address it is recom-

mended that the High Pressure Station be established and transferred from its present Congress street location. This will make possible a saving of $2,300 a year and plus the saving effected in twenty years will pay for the cost of erecting the house on Hanover street.

(*B.*) Engine 3 and Ladder 3 formerly quartered at the corner of Harrison avenue and Bristol street has for a period of almost a year and a half been temporarily located in a garage at 60 Bristol street. These temporary accommodations are inadequate and are of a makeshift nature. A new firehouse should be erected on city-owned land on Harrison avenue, halfway between Bristol street and Northampton street. Erection of this new firehouse would permit the transfer of Engine 3 and Ladder 3 to the new quarters and make possible the elimination of Engine 23 now located on Northampton street. This district is surrounded by hospitals, rooming houses, schools, and institutions where fire protection is most necessary, and adoption of this recommendation is urged immediately.

(*C.*) A new firehouse, located in West Roxbury, in the vicinity of Washington and Grove streets, is necessary due to the increased population in the south side of the city. A new station in this section will be sufficient to house equipment that can cover apparatus responding to alarms in West Roxbury, Hyde Park, Mattapan, and the Franklin Park section of Roxbury and Dorchester, as well as the Forest Hills and Jamaica Plain sections. In spite of the increased population of West Roxbury, Hyde Park and Dorchester during the last 25 years no additional Fire Department facilities have been established in these sections.

(*D.*) A two-story addition is recommended to connect the present Maintenance Building and Headquarters Building on Bristol street. Construction of this building will replace the garage which was razed during 1938 and permit the removal of the Fire Alarm Repair Shop from a building which will soon be condemned by the Building Commissioner according to present indications. This addition will permit of the consolidation of all maintenance activities under one roof and unless this addition is authorized within two years the department will have to rent space for the storage of cars and the operations of the Fire Alarm Repair Division. As an alternative to this the fire-

houses abandoned during 1938 might be restored to the department by use as department garages.

(*E.*) In view of the fact that one of the fireboats now in service is over 40 years old, plans should be prepared for the replacement of a fireboat in the near future. Future boats should be Diesel operated. Use of Diesel motors in the fireboats would eliminate, practically, the expense now borne by the city for fuel during the hours when the fireboats are not in actual operation at fires. Some one of our three fireboats is out of service for repairs during 6 months of the year. With Diesel motors this lost time would not be necessary and it is thus possible that two Diesel-operated boats might do the work of the present three oil and coal burning boats, at a tremendous saving in expense. The number of boats to be used in the future depends upon the future business in the harbor. At the present time the possibility of an oil fire flowing down from the Chelsea creek and the present condition of waterfront property and wharves militates against any reduction in marine equipment.

High Pressure Service.

The development of the Copley square section of the city and the proposed new construction planned by the neighborhood, makes obvious the need for extending the High Pressure Service to Copley square. At the present time this service ends at Church street, adjoining the Public Garden on the Park square side.

Personnel.

During the year 1939 it is recommended that because of the reduced quota and the high average age of privates in the department, that no further reduction in manpower be permitted. Until the average age of fire fighters is lowered at least one replacement for every two men retiring should be made. In later years when members of the contributory pension system commence to take advantage of that plan the city will be saved the expense of the present old pension system and men will be induced to retire at an earlier age. At the present time, however, because of the high average age of privates it is necessary to consider the condition of the men on duty as well as the number of men on duty.

Fire Prevention.

(*A*). Establishment of a chemical research laboratory at headquarters for use by the Arson Squad in analyzing the causes of fires at various addresses to enable the department to keep pace with the present trend towards scientific methods of fire analysis and fire prevention. Fire prevention inspectors would be aided in making industrial inspections by access to such a laboratory; the relative merits of various extinguishing agents could be quickly determined and by specializing in the subject of chemistry in fire, Boston would be taking a lead in an essential activity just as it did when it installed the first electric fire alarm system years ago and commenced to convert its radio system into two-way communication in the latter part of 1938. Men are now in the department and coming into the department with education in chemistry.

(*B.*) It is recommended that the Building Commissioner be provided with sufficient funds to raze all third-class buildings in the City of Boston which are abandoned, unoccupied for a period of over a year, or unsafe for occupancy. Such buildings are unsightly. They give cause for reduction of assessed valuations of neighboring pieces of property and they are fire hazards. The Fire Department at the present time has a list of such buildings.

(*C.*) It is recommended that legislation be petitioned for the right to order installation of sprinklers wherever cost will not exceed 5 per cent of value of land occupied by a building. The present law permits orders where cost does not exceed 5 per cent of land and buildings.

(*D.*) It is recommended that legislation be petitioned for the prohibition of the sale of fireworks except for supervised displays, thus eliminating the present hazards of small fireworks in hands of children or adults.

FIRE ALARM DIVISION.

During the hurricane in September a great many fire alarm circuits went out of service because of damage from the storm. Therefore, during the year 1939 it is recommended that a section of overhead wires of our

Fire Alarm System be placed underground and that each year henceforth additional sections be placed underground.

A survey should be made for the purpose of devising ways and means of reducing the present load on the telephone switchboard at Fire Alarm Headquarters.

Preparations should be made for the transmission and reception of two-way radio messages between fireboats, chiefs' cars and Fire Alarm Headquarters.

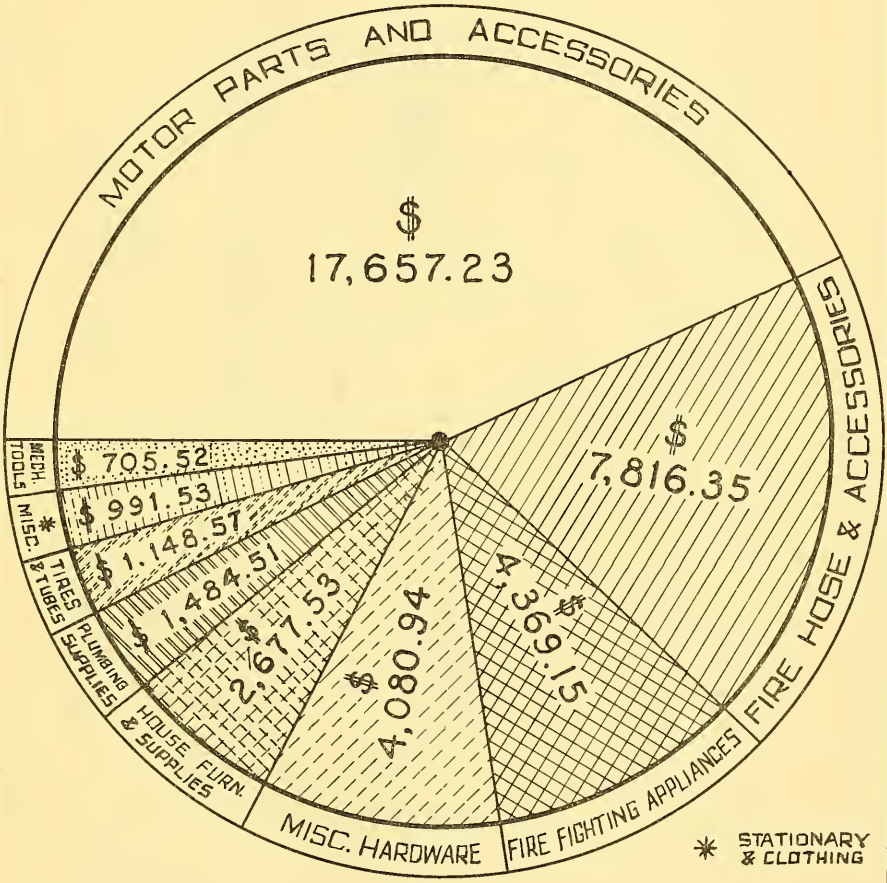
STATISTICS.

COMPARATIVE EXPENDITURES OF FIRE DEPARTMENT — 1932 TO 1938, INCLUSIVE.

	1932.	1933.	1934.	1935.	1936.	1937.	1938.
Personal Service	$3,600,841 58	*$3,123,281 24	*$2,980,335 59	$3,441,682 95	$3,376,838 35	$3,400,552 24	$3,410,847 37
Contractual Service	109,864 54	83,502 55	76,606 30	86,143 38	74,725 23	72,603 93	58,454 69
Equipment	145,966 88	75,998 68	75,577 58	81,586 73	128,677 58	60,705 70	17,897 47
Supplies	113,102 51	93,356 03	101,366 93	102,419 62	96,031 98	95,598 62	73,497 52
Materials	48,735 73	40,525 58	44,457 45	44,794 22	43,916 33	44,887 72	28,854 09
Special Items: (Pensions; Workmen's Compensation).	359,332 76	387,562 75	396,153 47	402,748 49	396,843 34	399,615 75	422,425 01
Emergency Relief Projects	.....	.....	2,587 70	1,952 81	6,823 87	10,363 58	7,004 47
Grand totals	$4,377,844 00	$3,804,226 83	$3,677,085 02	$4,161,328 20	$4,123,856 68	$4,084,327 54	$4,018,980 62

* Statutory pay cuts in effect in 1933 and 1934.

APPROXIMATE COST OF STOCK IN MAINTENANCE DIVISION

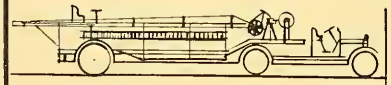


TOTAL $ 40,931.33

AS OF JULY 1, 1938

VALUE OF EQUIPMENT

BASED ON THE ORIGINAL COST



MOTOR FIRE FIGHTING APPARATUS

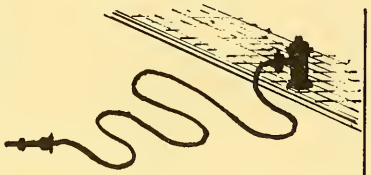
$

2,061,710.52

TRUCKS AND MACHINERY AT MAINTENANCE DIVISION

$

46,415.26



HOSE, EXTINGUISHERS AND WHEAT LIGHTS

$

144,387.87

UNIFORMS NOW IN USE

$

76,563.50

1938 LOSSES FROM FIRE.

1938.	Public and Institutional.		Residential.		Mercantile.		Manufacturing.		Miscellaneous.		Total.
	Buildings.	Contents.	Buildings.	Contents.	Buildings.	Contents.	Buildings.	Contents.	Buildings.	Contents.	
January	$82,566 35	$10,807 44	$69,724 90	$17,717 77	$44,412 25	$109,858 25	$18,199 43	$2,482 69	$560 00	$25 00	$356,354 00
February	22,721 05	7,868 72	61,739 03	15,494 72	66,859 55	77,856 04	1,800 00	3,246 70	3,209 50	3,261 98	264,057 29
March	1,968 00	.....	67,755 56	20,817 29	17,385 12	15,239 99	19,371 20	27,394 82	467 50	.....	170,399 48
April	1,169 00	.....	44,316 71	8,027 19	22,761 37	47,009 26	11,720 66	40,183 75	765 00	1,374 18	177,327 12
May	3,453 60	1,250 00	52,370 53	13,348 00	41,588 78	55,739 92	1,467 24	1,590 25	43,278 90	125 00	214,212 22
June	.....	.....	38,013 13	8,778 75	8,113 75	17,311 93	1,064 82	3,350 29	50,766 64	7,334 45	134,733 76
July	1,557 93	212 00	47,413 81	16,252 49	25,940 79	32,051 45	.....	75 00	303 00	.....	123,806 47
August	10 00	.....	54,843 02	14,960 26	34,506 98	33,294 27	40 00	.....	249 25	77 45	137,981 23
September	365 00	82 00	53,752 94	21,612 05	4,716 50	12,007 01	5,021 50	1,000 00	166 00	.....	98,723 00
October	353 00	.....	50,467 96	14,419 57	50,513 87	50,763 57	15,634 11	6,084 99	4,165 00	.....	192,402 07
November	4,125 00	115 00	27,141 15	6,687 61	22,246 11	39,809 96	7,777 07	43,525 84	.....	515 00	151,942 74
December	3,055 24	217 55	76,371 95	20,935 47	51,406 34	41,533 48	2,740 00	2,004 91	125 00	.....	198,389 94
Totals	$121,344 17	$20,552 71	$643,910 69	$179,051 17	$390,451 41	$532,475 13	$84,836 03	$130,939 24	$104,055 79	$12,713 06	$2,220,329 40 *7,558 43
											$2,227,887 83

* Automobile loss.

FIRE LOSSES FOR PAST TEN YEARS

TOTAL NUMBER OF FIRE ALARMS.

(To which Apparatus Responded.)

	1936.	1937.	1938.
First alarms	5,239	5,520	5,368
Still alarms	4,069	4,154	4,130
Automatic alarms	117	3	1
A. D. T. alarms	68	1	4
Totals	9,493	9,678	9,503
False alarms	1,369	1,442	1,658
Accidental alarms	245	247	262
Needless alarms	666	583	699
Multiple alarm fires:			
Two alarms	54	54	42
Three alarms	12	16	8
Four alarms	4	5	5
Five alarms	3	1	0
Total number of fire alarm boxes in service			1,708

ANALYSIS OF FIRES IN BUILDINGS.

Construction of Buildings.

Fire-resistive	156
Second class	1,774
Frame	1,527
Other types	8
Total	3,465

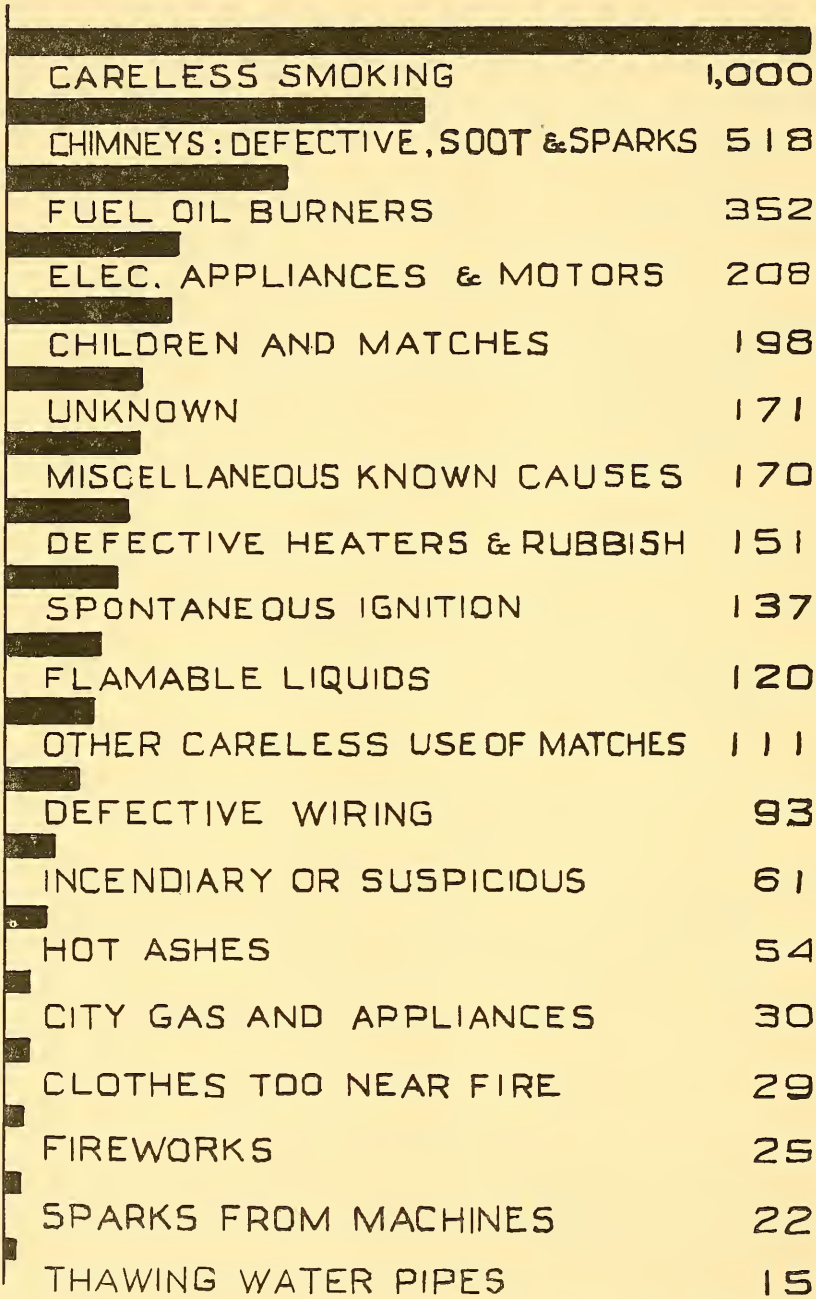
Point of Origin.

Basement	1,107
First floor	996
Second floor	448
Third floor	291
Above third floor	147
Roof	76
Outside	400
Total	3,465

Extent of Fire.

Confined to point of origin	2,857
Confined to buildings	547
Spread to other buildings	61
Total	3,465

CAUSES OF FIRES IN BUILDINGS

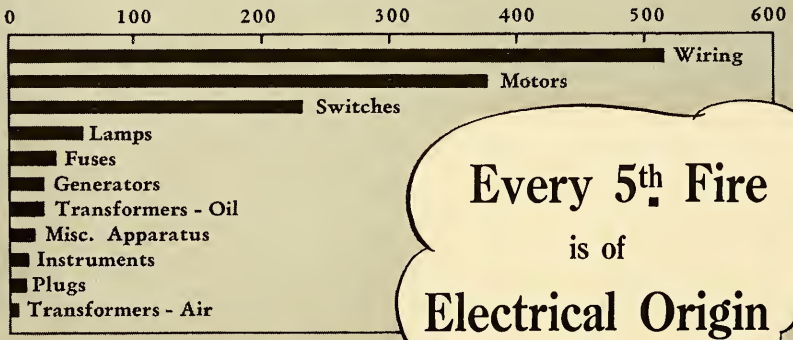


INDUSTRIAL FIRES & EXPLOSIONS

CAUSES OF ELECTRICAL FIRES

1935 - 1938 Incl.

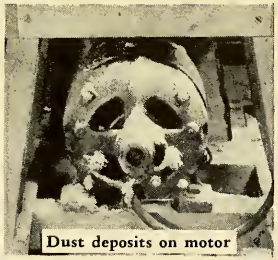
Number of Losses



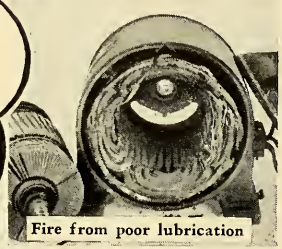
Every 5th Fire

is of

Electrical Origin



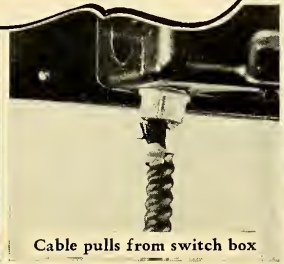
Dust deposits on motor



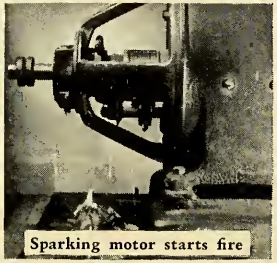
Fire from poor lubrication

Arc at worn contacts

Worn lamp cord starts fire



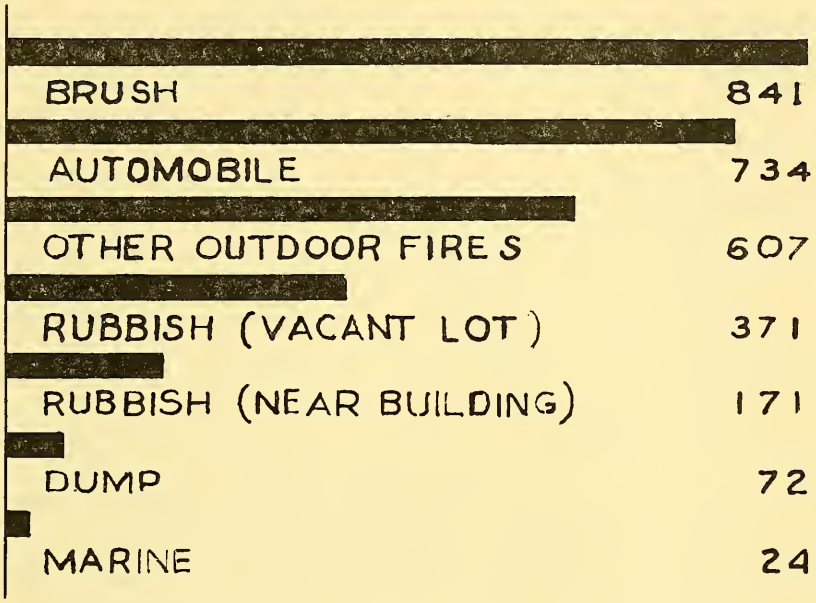
Cable pulls from switch box



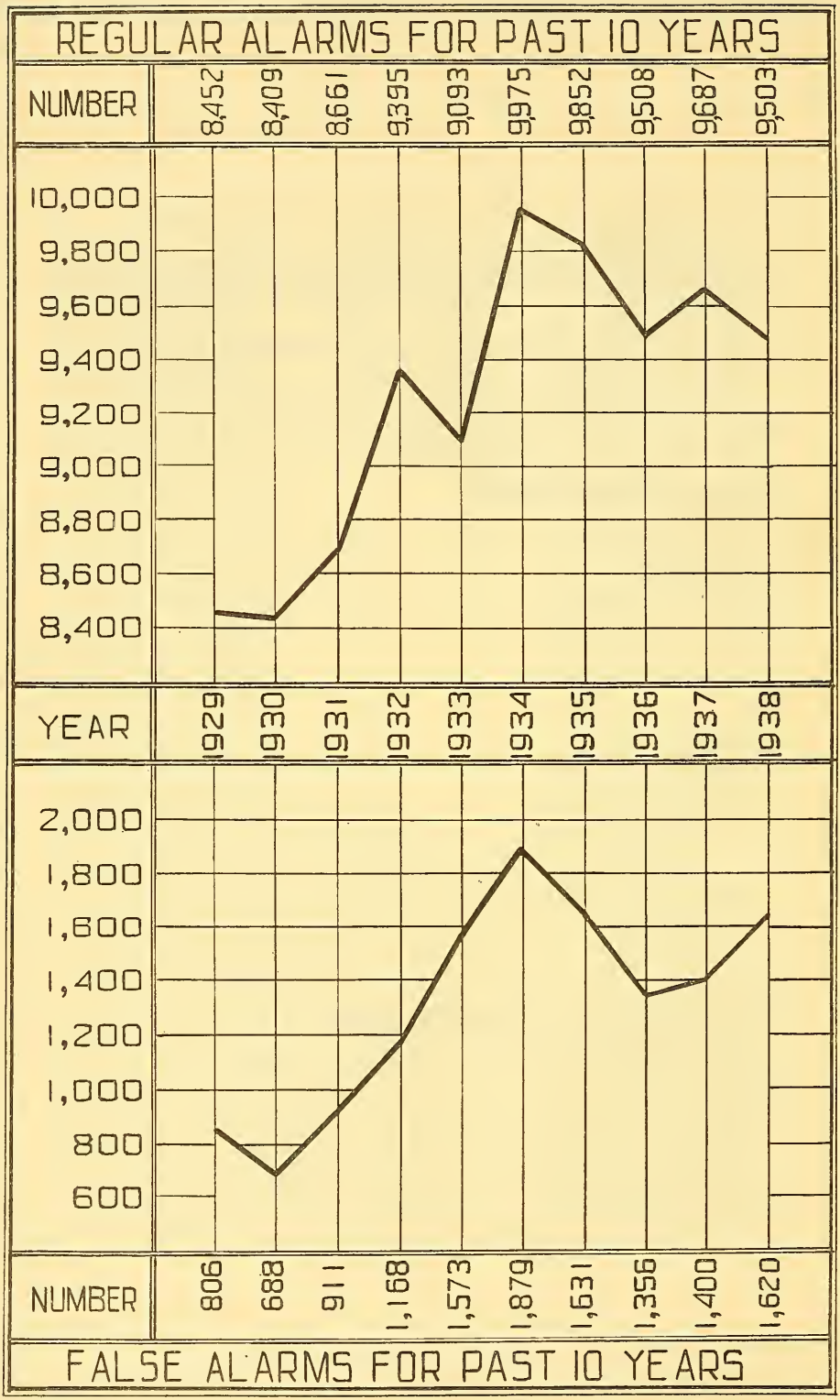
Sparking motor starts fire

Reprinted through the Courtesy of the Factory Mutual Record

CAUSES OF OUTDOOR FIRES



1938 TOTAL 2820


REGULAR ALARMS FOR PAST 10 YEARS
NUMBER
8,452
8,409
8,661
9,395
9,093
9,975
9,852
9,508
9,687
9,503
10,000
9,800
9,600
9,400
9,200
9,000
8,800
8,600
8,400
YEAR
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
2,000
1,800
1,600
1,400
1,200
1,000
800
600
NUMBER
806
688
911
1,168
1,573
1,879
1,631
1,356
1,400
1,620
FALSE ALARMS FOR PAST 10 YEARS

SUMMARY — SERVICE REPORTS, 1938, ENGINE COMPANIES.

UNIT.	Alarms Attended.	Working Fires.	Hose Used, Feet.	Hours Work.	Pump Hours.
Engine 1	424	131	34,800	47.22	3.00
Engine 2	204	83	20,950	35.27	2.53
Engine 3	530	175	44,950	206.53	15.00
Engine 4	526	176	39,650	71.24	3.80
Engine 5	365	140	58,100	68.20	38.15
Engine 6	425	179	26,325	99.15	10.18
Engine 7	355	165	36,600	76.00	9.00
Engine 8	367	222	45,650	155.20	27.30
Engine 9	352	132	30,900	70.20	30.55
Engine 10	370	128	30,950	82.48	25.00
Engine 11	207	111	29,450	54.10	35.28
Engine 12	742	216	51,450	82.29	13.37
Engine 13	876	253	50,200	104.26	63.17
Engine 14	889	193	28,450	54.52	16.32
Engine 15	552	138	41,500	58.50	3.19
Engine 16	365	148	31,200	54.54	5.39
Engine 17	537	158	25,250	55.40	8.59
Engine 18	472	195	24,300	118.45	21.16
Engine 19	474	246	42,200	79.00	8.35
Engine 20	346	138	37,300	69.38	13.13
Engine 21	613	227	37,250	122.51	30.27
Engine 22	707	273	89,550	104.26	18.00
Engine 23	841	193	46,950	75.33	11.31
Engine 24	676	250	62,750	78.17	5.41
Engine 25	316	160	24,950	75.16	0.40
Engine 26	549	123	30,000	63.30	21.50
Engine 27	219	102	18,200	73.30	13.12
Engine 28	415	121	23,550	39.70	8.10
Engine 29	372	143	18,250	68.60	6.54
Engine 30	233	148	37,150	64.24	12.35
Engine 31	120	10	1,850	14.45	10.45
Engine 32	213	109	17,950	33.00	8.00
Engine 33	464	240	43,400	94.00	47.00
Engine 34	301	107	22,200	62.58	6.51
Engine 35	461	128	22,000	86.00	19.00
Engine 36	239	122	25,650	49.27	10.43

Summary — Service Reports, 1938, Engine Companies.— Concluded.

UNIT.	Alarms Attended.	Working Fires.	Hose Used, Feet.	Hours Work.	Pump Hours.
Engine 37	522	266	46,100	92.41	21.55
Engine 38	233	156	20,700	102.57	34.00
Engine 39	270	180	21,050	91.42	30.00
Engine 40	215	122	24,550	64.00	15.00
Engine 41	392	196	30,600	90.45	8.40
Engine 42	614	191	45,650	71.21	42.80
Engine 43	533	114	27,700	45.47	6.55
Engine 44	132	32	3,950	26.19	14.00
Engine 45	301	118	25,600	65.31	31.56
Engine 46	546	131	26,700	145.37	6.58
Engine 47	150	13	6,300	60.25	48.45
Engine 48	278	147	37,380	50.40	17.25
Engine 49	168	75	20,650	85.14	49.23
Engine 50	470	160	44,600	101.35	9.33
Engine 51	184	79	17,600	40.55	2.16
Engine 52	431	192	32,000	63.41	16.32
Engine 53	330	107	21,000	31.32	8.25

SUMMARY — SERVICE REPORTS, 1938, LADDER COMPANIES.

UNIT.	Alarms Attended.	Working Fires.	Ladders Used, Feet.	Hours Work.
Ladder 1	476	231	8,722	126.13
Ladder 2	295	183	4,195	36.50
Ladder 3	499	200	4,656	226.43
Ladder 4	935	263	5,268	91.53
Ladder 5	464	136	2,105	47.40
Ladder 6	419	136	534*	47.37
Ladder 7	664	253	1,702	84.40
Ladder 8	458	225	6,526	190.10
Ladder 9	299	157	1,740	91.13
Ladder 10	423	92	1,413	35.30
Ladder 11	414	148	2,437	73.55
Ladder 12	855	271	5,777	102.26
Ladder 13	710	355	12,894	108.44
Ladder 14	443	206	2,832	109.13
Ladder 15	416	265	9,225	109.54
Ladder 16	407	169	689*	64.51
Ladder 17	537	158	5,837	93.13
Ladder 18	202	128	3,296	70.49
Ladder 19	179	114	1,037	40.00
Ladder 20	580	163	1,745	77.80
Ladder 21	178	110	287	46.50
Ladder 22	301	130	1,317	66.00
Ladder 23	745	270	3,667	98.54
Ladder 24	456	266	7,792	127.33
Ladder 25	228	143	578*	49.48
Ladder 26	455	197	4,206*	71.20
Ladder 27	403	134	781*	111.30
Ladder 28	298	121	875*	51.00
Ladder 29	510	203	1,976*	59.50
Ladder 30	615	177	1,715	50.16
Ladder 31	348	191	1,929	74.28

* Also used hose.

INSPECTIONS AND REPORTS BY THE FIRE PREVENTION DIVISION.

	1938.	1937.	1936.	1935.	1934.
Number of Inspections:					
By District Officers	28,895	81,812	95,424	95,378	122,142
By Fire Prevention Inspectors	194,043	102,964	100,411	209,164	106,332
Total	222,938	184,776	195,835	304,542	228,474
Reinspections (total)	10,400	12,762	14,319	11,441	10,474
Corrective Demands (by Inspectors)	13,005	11,585	12,609	11,179	9,951
Corrections (minor hazards)	36,016	24,466	28,060	23,932	18,241
Permits (inflammable fluids):					
Renewals	4,525				†
New applications	3,605	2,315*	2,032*	538*	
Prosecutions for violation Fire Prevention laws	1	.....	.....	.....	1
Reports of hazardous conditions:					
Sent to other departments having jurisdiction	1,009	914	1,169	1,302	1,851
Sent to property owners and occupants	466	494	451	490	509
Recommendations to raze buildings	56	37	59	‡	‡

* Includes both renewals and new applications; no separate record kept.
† No separate records kept; all permits issued on same form.
‡ No record kept.

ARSON SQUAD ACTIVITIES.

Personnel: 6 Fire Prevention Inspectors; 2 Police Inspectors.

	1938.	1937.	1936.	1935.	1934.
Number of investigations:					
Number of suspicious fires	40	44	64	48	73
Fires reported, cause undetermined	206	103	128	78	198
Others	26	94	72	182	33
Totals	273	241	264	308	304
Hearings held	17	13	14	22	27
Persons interviewed	18	24	43	28	37
Cases to District Attorney	4	7	7	13	16
Indictments returned	3	3	3	12	10
Trials	1	4	7	6	16
Cases awaiting action	5	4	3	6	7
Convictions (not including juveniles)	0	2	4	3	14
Persons indicted awaiting trial	5	4	2	12	9
Persons arrested	12	8	9	24	23

SUMMARY OF DEPARTMENTAL EDUCATIONAL ACTIVITIES — 1938.

FIRE COLLEGE:

Capt. John J. Crehan, Drill Master. (January to June.)

Number of sessions	2
Number of lectures	54
Number of lectures each session	27
Attendance:	
All sessions	85
Total department members	81
Total outside department	4
Total officers	42
Total privates	39

DRILL SCHOOL:

Lieut. F. A. Nicholson, Drill Master.

Number of company drills (supervised by officers)	104
Number supervised by Drill Master	55
Number of new men drilled	18
Number of public exhibitions	10

PUMP SCHOOL:
James W. Ryan, Engineer of Motor Apparatus.

Number of classes conducted	4
Certificates issued	26
Total attendance	26

CHAUFFEURS SCHOOL:
James W. Ryan, Engineer of Motor Apparatus.

New chauffeurs granted licenses	28
Licenses renewed	1,247

TELEGRAPHERS SCHOOL:
James J. Callahan, Instructor.

New men certified	21
Total new men trained	30

COMPARATIVE FIGURES — MAN POWER.

YEAR.	Total Fire Fighting Force.	Total Number of Privates.*	Total Number of Lieutenants.	Total Number of Captains.
1934	1,403	1,050	108	75
1935	1,367	1,023	104	72
1936	1,339	990	102	74
1937	1,409	1,043	115	79
1938	1,371 [1]	1,021 [2]	106 [3]	77 [4]

* As of December 31.
Average age (1938): [1] Entire force, 46 years; [2] privates, 45 years; [3] lieutenants, 49 years; [4] captains, 54 years.

DONATIONS TO WORTHY CAUSES BY MEMBERS OF BOSTON FIRE DEPARTMENT DURING YEAR 1938.

1938 Community Fund	$9,595 04
Salvation Army	381 25
American Red Cross	650 00
Mayor's Field Day	2,688 00
President's Birthday Ball	1,464 00
Total	$14,778 29

MOTORIZED APPARATUS — SUMMARY OF PURCHASES.

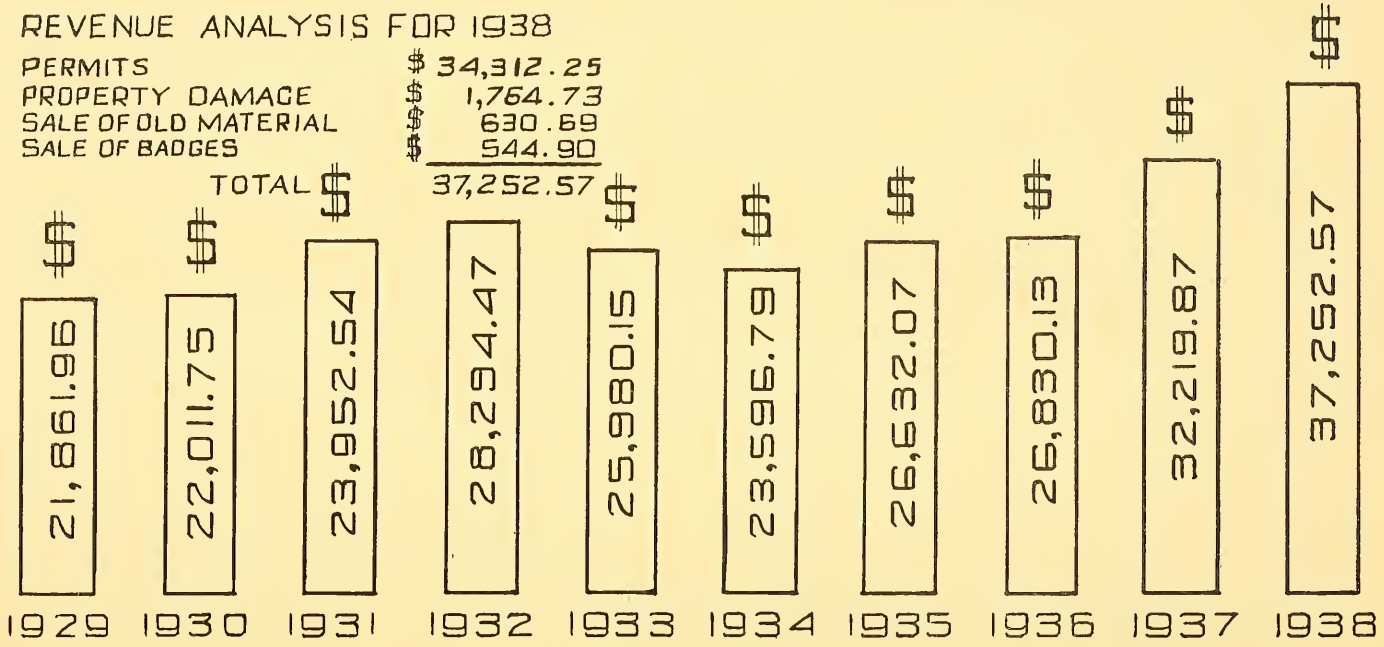
YEAR.	Number of Units Bought.	Net Cost.
1911	1	$5,500
1912	1	5,500
1913	6	33,400
1914	18	105,997
1915	13	73,063
1916	10	50,750
1917	25	121,970
1918	None.	—
1919	19 [1]	220,706
1920	14 [2]	135,317
1921	9	103,900
1922	10	122,780
1923	24	261,908
1924	6 [3]	73,204
1925	11	124,930
1926	20	223,463
1927	11	112,154
1928	13	160,567
1929	12	134,105
1930	14	138,243
1931	14	122,587
1932	3	41,467
1933	None.	—
1934	None.	—
1935	None.	—
1936	4	57,500
1937	None.	—
1938	None.	—
Total	258	$2,429,011

[1] 2 pieces still in service. (20 years.)
[2] 6 pieces still in service.
[3] 35 pieces still in service bought previous to 1924, not including an equal number now held in reserve.

REVENUES FOR PAST TEN YEARS

REVENUE ANALYSIS FOR 1938

PERMITS	$ 34,312.25
PROPERTY DAMAGE	1,764.73
SALE OF OLD MATERIAL	630.69
SALE OF BADGES	544.90
TOTAL	37,252.57



1938 ALARMS 1939

	MONTHS	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL
ALARMS	BOX	414	375	498	493	350	339	411	374	506	624	478	497	5359
	TELEPHONE	262	251	369	387	252	199	214	209	345	347	262	314	3411
	OTHER STILLS	54	45	91	78	47	51	58	53	73	72	60	51	733
	TOTAL	730	671	958	958	649	589	683	636	924	1043	800	862	9503
ALARMS RECEIVED FROM	MEMBERS	6		10	3	3	4	7	2	1	9	8	4	57
	POLICE	11	6	10	11	13	12	17	7	11	11	8	10	127
	WATCHMAN	15	9	17	9	9	7	5	10	9	7	14	10	121
	OUTSIDERS	573	530	743	778	512	432	499	464	693	767	596	672	7259
	AUTOMATIC	23	29	16	22	19	26	22	20	34	19	26	23	279
	UNKNOWN	102	97	162	135	93	108	133	133	176	230	148	143	1660
	TOTAL	730	671	958	958	649	589	683	636	924	1043	800	862	9503
NO FIRE	FALSE	102	96	162	135	93	108	133	133	176	229	148	143	1658
	ACCIDENTAL	23	26	15	17	14	28	21	19	32	17	29	21	262
	RESCUE	31	42	32	38	19	41	39	54	121	45	38	38	538
	NEEDLESS BELLS	19	15	13	13	12	15	24	16	22	32	20	20	221
	NEEDLESS STILLS	45	46	39	37	29	29	32	23	51	53	44	50	478
AUTOMOBILE FIRES		55	58	64	63	55	42	58	52	60	58	91	78	734
RUBBISH & GRASS	RUBBISH, VACANT LOT	21	10	21	57	42	27	37	30	31	53	24	18	371
	RUBBISH NEAR BUILDING	6	2	11	19	14	14	16	18	20	30	10	11	171
	DUMP	1	3	10	10	6	2	5	6	9	8	6	6	72
	BRUSH OR GRASS	9	46	231	198	52	20	10	11	31	87	66	80	841
	OTHER OUTDOOR	33	17	32	42	39	68	85	46	86	95	36	28	607
MARINE FIRES			2	2	3	3	3	2	1	4	2		2	24
OUT OF CITY CALLS		6	4	11	11	6	2		5	3	5	2	6	61
BUILDING FIRES	CONFINED TO ROOM	327	244	256	256	204	151	181	186	240	258	240	314	2857
	CONFINED TO BUILDING	47	53	53	49	52	36	37	33	37	63	45	42	547
	EXTENDED TO OTHERS	5	7	6	10	9	3	3	3	1	8	1	5	61

SECTION II — THE WIRE DIVISION.

Mr. Bernard B. Whelan, Interior Inspector, was promoted to Superintendent to take effect October 26, 1938.

Regular inspections of electrical installations in theatres, places of amusement and public halls were made during the year, together with inspections of new and old installations and changes in electrical work throughout the city, and thorough investigations were made of all fires and accidents reported as due to electrical causes, and reports of the same are on file in this Division.

During the year there were 129 fires in buildings reported as due to electrical causes, 5 manhole troubles, 8 pole troubles, 11 miscellaneous troubles and 10 accidents, none of which was fatal.

The annual underground district was prescribed in accordance with chapter 110 of the Acts of 1936.

The income received from permits to perform electrical work was $37,910.15.

Following is a summary of the work of the Interior Division of the Wire Division for the year 1938:

Notices of new work received	12,322
Number of permits issued to turn on current	10,646
Number of incandescent lamps inspected	2,127,148
Number of motors inspected	16,401
Total horsepower of motors inspected	58,504
Number of arcs inspected	2,526
Number of inspections made	34,836
Number of inspections made of theatres, places of amusement and public halls	1,540

Exterior Division.

The underground district for the year 1938, as prescribed under authority of chapter 110 of the Acts of 1936, comprised the following streets:

Roxbury District.— Vale street, from Thornton street to Marcella street.

Dorchester District.— Gallivan Boulevard, from Neponset avenue to Hallet street; Minot street, from Neponset avenne to Carruth street.

South Boston District.— M street, from East Broadway to East First street; Hamlin street, from East Ninth street to East Eighth street; Douglas street, from East Ninth street to East Eighth street; Vinton street, from Dorchester street to Preble street; Tuckerman street, from Middle street to Dorchester street; Middle street, from Dorchester street to Dorchester avenue; Ward street, from Dorchester street to Preble street; Rogers street, from Dorchester street to Preble street; East Seventh street, from G street to Farragut road; Springer street, from East Seventh street to East Eighth street; Columbia road, from G street to I street; Dorchester street, from East Broadway to East First street; Emerson street, from East Third street to East Broadway; East Third street, from Dorchester street to M street; Preble street, from Dorchester avenue to Old Colony avenue; Hardy street, from East Eighth street to Marine road; Mohawk street, from Preble street to Gen. William H. Devine way.

Making a total distance of four miles as prescribed by law.

In these prescribed streets from which poles and overhead wires were to be removed there was standing on January 1, 1939, 210 poles and 284,120 linear feet of wire.

In side or residential streets, special underground construction for light and power purposes (115–230 volts) of the type known as "Split Fibre Solid Main System," has also been installed.

The ducts used for underground conduits of the drawing-in system are of the following types:

1. Vitrified clay (laid in concrete).
2. Fibre (laid in concrete).
3. Wood.
4. Iron.

During the past year the inspectors of this division have reported 79 poles decayed at base, and 17 poles leaning or a total of 96 poles which were replaced or reset by the various companies.

The Boston Elevated Railway Company removed 81 iron poles.

Also, 125 accident reports received and investigated, consisting of reports on poles knocked down, manhole explosions, gas in manholes, and fires in manholes, also wires broken by wind and trees falling, and burn-outs on transformers.

The following table shows the overhead work for the year of 1938, from January 1, 1938, to December 31, 1938, inclusive:

Number of new poles set in locations	19
Number of poles removed	29
Number of poles replaced, reset, or straightened	528
Number of poles standing in public streets	17,023
Number of defects reported	503
Number of defects corrected	263
(Other defects in process of correction.)	
Number of notices of overhead construction	2,964
Number of overhead inspections	10,718
Number of overhead reports	14,996
Amount of overhead wires removed by various companies	255,582
Number of underground electrical approvals	1,712
Number of inspections of underground construction,	4,614

TABLE SHOWING UNDERGROUND WORK FOR 1938.

COMPANY.	Feet of Conduit.	Feet of Duct.	Feet of Cable.	Number of Manholes.	Number of Services.
Boston Consolidated Gas Company.	203	203	12,856	.....	5
Boston Edison Company.....	53,027	120,381	297,854	112	778
Boston Elevated Railway.....	3,000	24,472	18,205	11	
Fire Alarm Branch (Boston Fire Department).	414	414	.....	.....	4
New England Telephone and Telegraph Company.	3,026	3,348	.....	8	19
Police Signal Service (Boston Police Department).	60	60	7,672	1	4
Western Union Telegraph Company.	.....	.....	1,856		
Totals.....	59,730	148,878	338,443	132	810

CHARACTER OF CABLE USED BY THE VARIOUS COMPANIES, 1938.

COMPANY.	Kind of Insulation.	Size.
Boston Consolidated Gas Company	Weather-proof, rubber, paper, varnished cambric.	
Boston Edison Company	Rubber, lead covered.	No. 6, No. 4, No. 2, No. 0, No. 0000. 350,000–1,500,000 C. M.
Boston Elevated Railway	Rubber, lead covered.	500,000–1,000,000 C. M.
Fire Alarm Branch (Boston Fire Department)	Rubber covered.	4–6–10 conductor.
New England Telephone and Telegraph Company	Lead-paper.	From 11 to 1,818 pairs of No. 16 to No. 26 gauge.
Police Signal Service (Boston Police Department)	Rubber and paper.	7 conductor No. 14 gauge. 11 conductor No. 19 gauge. 50 and 52 pairs No. 19 gauge.
Western Union Telegraph Company	Western Electric, paper.	2–26 pairs twisted wire. 10–40 conductor.

TABLE SHOWING THE AMOUNT AND DISTRIBUTION OF BOSTON'S ELECTRICAL POWER, YEAR 1938.

COMPANY.	Total Rated Horse-Power of Boilers.	Total Rated Horse-Power of Engines.	Capacity of Incandescent Lamps in Kilowatts.	Capacity of Arc Lamps in Kilowatts.	Kilowatts of Motors.	Kilowatts of Mixed Load.	Number of Stations.
Boston Consolidated Gas Company	0	0	3,300	250	6,900	250	2
Boston Edison Company	40,232	265,416	*	*	*	1,191,471	91
Boston Elevated Railway	24,360	241,287	3,879	15	224,695	51,210	15
Hanover Street Trust	400	359	125	0	75	200	1
Quaker Building Company	876	400	125	0	106	231	2
Totals	65,868	507,462	7,429	265	231,776	1,243,362	111

* Figures unknown.

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CITY OF BOSTON PRINTING DEPARTMENT